<u>Claims</u>

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- 1. A copolymer derived from the polymerization of
 - (a) at least one cationic monomer of formula (I),

$$R_{1}-CH = C - C - C - CH_{2} - N_{1} - R_{4}$$

$$R_{1} - CH = C - C - CH_{2} - N_{1} - R_{4}$$

$$R_{2} - CH_{2} - N_{1} - R_{4}$$

$$R_{3} - R_{4}$$

$$R_{1} - CH = C - C - CH_{2} - N_{1} - R_{4}$$

$$R_{2} - CH_{2} - CH_{2} - N_{1} - R_{4}$$

$$R_{3} - CH_{2} - CH_{2} - N_{1} - R_{4}$$

$$R_{4} - CH_{2} - CH_{2} - CH_{2} - CH_{2} - N_{1} - R_{4}$$

$$R_{5} - CH_{2} - CH_$$

wherein

R₁ is hydrogen or methyl,

R₂ is hydrogen or C₁-C₄alkyl,

 R_3 , R_4 and R_5 are independently from each other hydrogen or C_1 - C_4 alkyl,

n is a integer from 1 - 5, and

Y is a counterion,

and

(b) at least one monomer of formula (II)

$$R_6$$
-CH=C-C-N $\begin{pmatrix} R_8 \\ II \\ R_7 \end{pmatrix}$ (II)

15 wherein

R₆ signifies hydrogen or methyl, and

 R_7 , R_8 and R_9 signify independently from each other hydrogen or C_1 - C_4 alkyl, with the proviso that at least one of the substituents R_6 , R_7 , R_8 and R_9 is C_1 - C_4 alkyl,

20 and

- (c) optionally at least one cross-linking agent, which contains at least two ethylenically unsaturated moieties.
- A copolymer according to Claim 1 characterized in that it consists of
 20 95 wt-% of at least one monomer of formula (I) and of
 5 50 wt-% of at least one monomer of formula (II).
 - 3. A copolymer according to Claim 1 or 2 characterized in that it consists of 40-90 wt-% of at least one monomer of formula (I) and of

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10 - 40 wt-% of at least one monomer of formula (II).

- 4. A copolymer according to anyone of the preceding claims characterized in that the copolymer comprises 50 500 ppm, preferably 100 300 ppm of at least one cross-linking agent based on the total amount of the copolymer.
- 5. A copolymer according to anyone of the preceding claims characterized in that

R₁ is hydrogen or methyl, more preferably hydrogen,

R₂ is hydrogen or methyl, more preferably hydrogen,

 R_3 , R_4 and R_5 are independently from each other hydrogen or methyl, more preferably methyl,

n is an integer from 1-4, and

Y is Cl; Br; l; hydrogensulfate or methosulfate.

15 6. A copolymer according to anyone of the preceding claims characterized in that

R₆ signifies hydrogen or methyl, more preferably hydrogen.

R₇ signifies hydrogen or methyl, more preferably hydrogen, and

R₈ signifies hydrogen or methyl, and

R₉ signifies hydrogen or methyl, more preferably methyl,

with the proviso that at least one of the substituents R_6 , R_7 , R_8 and R_9 is methyl.

- 7. A copolymer according to Claim 1 derived from the polymerization of
 - (a) a cationic monomer of formula (I),

$$R_{1}-CH=C-C-O-\left(-CH_{\frac{1}{2}}\right)_{n}-N+R_{4}$$

$$R_{1}-CH=C-C-O-\left(-CH_{\frac{1}{2}}\right)_{n}-N+R_{4}$$

$$R_{1}-CH=C-C-O-\left(-CH_{\frac{1}{2}}\right)_{n}-N+R_{4}$$

$$R_{1}-CH=C-C-O-\left(-CH_{\frac{1}{2}}\right)_{n}-N+R_{4}$$

$$R_{1}-CH=C-C-O-\left(-CH_{\frac{1}{2}}\right)_{n}-N+R_{4}$$

$$R_{1}-CH=C-C-O-\left(-CH_{\frac{1}{2}}\right)_{n}-N+R_{4}$$

wherein

 R_1 , R_2 , R_3 , R_4 and R_5 are independently from each other hydrogen or methyl, n is 1, 2 or 3, and

Y is a counterion, preferably CI; Br; I; hydrogensulfate or methosulfate, and

(b) a monomer of formula (II)

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$$R_6 - CH = C - C - N < R_8 R_7$$
 (II)

wherein

 R_6 signifies hydrogen or methyl, more preferably hydrogen, R_7 signifies hydrogen or methyl, more preferably hydrogen, and R_8 signifies hydrogen or methyl, more preferably methyl, and R_9 signifies hydrogen or methyl, more preferably methyl, with the proviso that at least one of the substituents R_6 , R_7 , R_8 and R_9 is methyl,

and

- (c) optionally at least one cross-linking agent selected from the group of tetra allyl-ammonium chloride; allyl-acrylamides and allyl-methacrylamides; bisacrylamidoacetic acid and/or N,N'-methylene-bisacrylamide, preferably tetra allyl ammonium chloride and/or N,N'-methylene-bisacrylamide.
- A copolymer according to Claim 7 derived from the polymerization of 20 – 95 wt-% of at least one cationic monomer of formula (I), more preferably of 40 – 90 wt-% of at least one cationic monomer of formula (I), and

of 5 - 50 wt-%, more preferably of 10 - 40 wt-% of at least one monomer of formula (II)

and

of 50 – 500 ppm (based on the total amount of monomers), more preferably of 100 – 300 ppm (based on the total amount of monomers) of at least one compound of the group of tetra allyl ammonium chloride; allyl-acrylamides and allyl-methacrylamides; bisacrylamidoacetic acid and/or N,N'-methylene-bisacrylamide, more preferably tetra allyl ammonium chloride and/or N,N'-methylene-bisacrylamide.

A copolymer according to Claim 1 derived from the polymerization of
 (a) 40 – 90 wt-% of a cationic monomer of formula (I),

R-CH=C-C-O-
$$\left(-CH_{\frac{1}{2}}\right)_{n}^{R_{3}}$$
 N=R₄ (I)
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wherein

R₁ and R₂ are hydrogen,

R₃, R₄ and R₅ are methyl,

n is 1, 2 or 3, preferably 2, and

Y is CI; Br; I; hydrogensulfate or methosulfate, preferably CI, and

(b) 10 - 40 wt-% of a monomer of formula (II)

$$R_6 - CH = C - C - N < R_9$$
 (II)

wherein

R₆ and R₇ signify hydrogen,

R₈ and R₉ signify methyl,

and

(c) of 100 – 300 ppm of tetra allyl ammonium chloride and/or N,N'-methylene-bisacrylamide.

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- 10. Use of a copolymer according to anyone of the preceding Claims for water- and/or oil-based compositions, preferably for water- and/or oil-based personal care compositions.
- 10 11. An oil/water- based personal care composition comprises:
 - 0.5 10 wt-% of at least one copolymer according to Claim 1 8
 - 2-25 wt-% of at least one oil-component,
 - 0-25wt-% of at least one adjuvant and/or additive,

water up to 100 wt-%.

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- 12. A typical oil-based personal care composition comprises
 - 0.5 10 wt-% of at least one copolymer according to Claim 1 8
 - 50 99 wt-% of at least one oil-component,
 - 0-25 wt-% of at least one adjuvant and/or additive.

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